



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,498	03/16/2004	Masahito Yamazaki	CFA00067US	3662

34904 7590 08/21/2007
CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
15975 ALTON PARKWAY
IRVINE, CA 92618-3731

EXAMINER

DICKER, DENNIS T

ART UNIT	PAPER NUMBER
----------	--------------

2609

MAIL DATE	DELIVERY MODE
-----------	---------------

08/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/802,498

Applicant(s)

YAMAZAKI ET AL.

Examiner

Dennis Dicker

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/16/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 4, 5, 12, 13, 15, 16, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yabe (US 5,907,415).

As pertaining to Claims 1, 2, 13, 16 and 17, Yabe teaches an image input/output system and image processing method [10 and 70 of Figure 1], a program provided in a computer and a recording medium which is readable by a computer and stores the program [Column 9 Lines 50-58] comprising an obtaining means for obtaining a print-job that includes printing-mode information and print-data [Column 1 Lines 34-35]; analyzing means for analyzing the printing-mode information to determine whether an output mode of the print-data is a high-contrast output mode or a low-contrast output mode; and generating means for generating image data according to the output mode, the image data in the high-contrast output mode being generated by calculating color-space conversion of the print-data at a high bit-depth, the image data in the low-contrast output mode being generated by calculating the color-space conversion of the print-data at a low bit-depth and an output mean for outputting the image data on a medium [Column 1 Lines 56-61].

As pertaining to Claim 3, Yabe teaches an image input/output system wherein the generating means generates an intermediate picture object by calculating the color-space conversion of the print-data and stores the intermediate picture object, the generating means generating the image data by calculating the color-space conversion of the stored intermediate picture object [Column 2 Lines 53-64].

As pertaining to Claim 4, Yabe teaches image input/output system wherein the analyzing means comprises: first setting means for setting the output mode to the low-contrast output mode if the printing-mode information includes a monochrome-output command; and second setting means for setting the output mode to the high-contrast output mode if the printing-mode information includes a color-output command and the print-data includes at least one picture object for color-output [Column 8 Lines 14-19].

As pertaining to Claim 5, Yabe teaches an input/output system comprising: setting means for setting a processing bit-depth for color-space conversion calculation [Column 2 Line 60 – Column 3 Line 22]; and selecting means for selecting one of multiple contrast-output modes including the high-contrast output mode and the low-contrast output mode [Column 8 Lines 14-19].

As pertaining to Claim 12, Yabe teaches an image input/output system comprising: obtaining means for obtaining a print-job that includes print-data [Column 1 Lines 34-35]; examining means for examining an output bit-depth of a picture object in the print-data by analyzing the print-data; comparing means for comparing the output bit-depth of the picture object with a processing bit-depth of the image input/output system in a low-contrast output mode [Column 1 Lines 56-61]; and generating means

Art Unit: 2609

for generating image data by calculating color-space conversion for the print-data at a low bit-depth when the output bit-depth of the picture object is lower than the processing bit-depth of the image input/output system in the low-contrast output mode [Column 3 Lines 14-32] .

As pertaining to Claim 15, Yabe teaches a method for generating a print-job, comprising: setting an output mode of print-data to a low-contrast output mode, the print-data being output by an image input/output system [Column 8 Lines 14-19], generating printing-mode information having information for the low-contrast output mode if monochrome output is selected for a picture object of the print-data to be output by the image input/output system; generating printing-mode information having information for the high-contrast output mode if color output is selected for picture objects to be output by the image input/output system, and if at least one of the picture objects included in the print-data is a color object; and generating the print-job that includes the printing-mode information and the print data [Column 2 Line 53-Column 3 Line 31].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yabe in view of Shima (US 6,149,323).

With respect to claim 6, Yabe teaches an image input/output system [10 and 70 of Figure 1] comprising an obtaining means for obtaining a print-job that includes printing-mode information [Column 1 Lines 34-35] and print-data; analyzing means for analyzing the printing-mode information to determine whether an output mode of the print-data is a high-contrast output mode or a low-contrast output mode; and generating means for generating image data according to the output mode, the image data in the high-contrast output mode being generated by calculating color-space conversion of the print-data at a high bit-depth, the image data in the low-contrast output mode being generated by calculating the color-space conversion of the print-data at a low bit-depth and an output mean for outputting the image data on a medium [Column 1 Lines 56-61].

Yabe does not explicitly teach a printer driver which operates in a terminal connectable to the image input/output system and generates the print-job output to the image input/output system or the printer driver comprising: selection means for allowing a user to select contrast properties; and adding means for adding the contrast properties to the print-data to generate the print-job.

Shima teaches printer driver which operates in a terminal connectable to the image input/output system and generates the print-job output to the image input/output system or the printer driver comprising: selection means for allowing a user to select contrast properties [Column 9 lines 20-29]; and adding means for adding the contrast properties to the print-data to generate the print-job [Column 12 Lines 29-40].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the system taught by Yabe with the print driver taught by Shima in order to generate a print job with improved image attributes for better image quality and user selection features for added manual input in the input/output system

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yabe in view of Shima and further view of Kuwata et al. (hereinafter "Kuwata" US 2002/0025079).

With respect to claim 7 and 8, Shima or Yabe do not teach a printer driver comprising determining means for determining the presence of a picture object for color-output in the print-data wherein the adding means adds high-contrast properties to the print-data if the picture object for color-output is present in the print-data, and adds low-contrast properties to the print-data if the picture object for color-output is not present in the print- data.

Kuwata teaches a printer driver [21b of Figure 2] comprising determining means for determining the presence of a picture object for color-output in the print-data [Abstract] and an examining means for examining an output of bit depth of a picture object in print data [Column 8 Lines 22-49], wherein the adding means adds high-contrast properties to the print-data if the picture object for color-output is present in the print-data [Column 5 Lines 36-54], and adds low-contrast properties to the print-data if the picture object for color-output is not present in the print-data [Column 21 Lines 4-15].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the system taught by Yabe with the features in a print driver taught by Shima and Kuwata in order apply the contrast properties more precisely in an input/output system.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yabe in view of Sasaki (US 4,969,051).

With respect to claim 14, Yabe teaches a an image-processing method [10 and 70 of Figure 1] comprising: obtaining a print-job which includes printing-mode information and print-data [Column 1 Lines 34-35]; analyzing the printing-mode information to determine whether an output mode of the print-data is a high-contrast output mode or a low-contrast output mode; if the output mode of the print-data is the high-contrast output mode, generating image data by calculating color-space conversion of the print-data at a high bit-depth; and if the output mode of the print-data is the low-contrast output mode, generating the image data by calculating the color-space conversion of the print-data at a low bit- depth [Column 1 Lines 56-61].

Yabe does not explicitly teach a method wherein the print-data includes contrast properties selected by a user.

Sasaki teaches a method wherein the print-data includes contrast properties selected by a user [Figure 6 and Column 9 Line 65-Column 10 Line 24].

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the method taught by Yabe with the method taught by Sasaki in

Art Unit: 2609

order to give the user better control when adding contrast attributes when processing an image.

7.

Allowable Subject Matter

Claims 9, 10, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: none of the references, either singularly or in combination, teach or fairly suggest a **print generating means for generating the print-job that includes the print-data and the printing-mode information generated by the low-contrast generating means and the high-contrast generating means, a generating means for generating image data by calculating color-space conversion for the print-data at a high bit-depth if the presence of the picture object for color-output is determined and by calculating the color-space conversion at a low bit-depth if the presence of the picture object for color-output is not determined, the generating means generates the image data without calculating the color-space conversion for the print-data if the picture object in the print-data is to be rendered by a predetermined property and color.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Dicker whose telephone number is (571) 270-3140. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Eisen
SPE
Art Unit 2609